

March 10, 2017  
Project No. 209821001

Mr. Mons Mendoza  
Senior Project Manager, Facilities  
William S. Hart Union High School District  
21380 Centre Pointe Parkway  
Santa Clarita, California 91350

Subject: Proposal for Geotechnical Testing Services  
William S. Hart High School – Infrastructure Phase 1  
Extension to Newhall Avenue  
24825 Newhall Avenue  
Newhall, California  
DSA Application No. 03-115032

References: Flewelling & Moody, 2016, Project Drawings, William S. Hart High School, Infrastructure – Phase 1, 24825 Newhall Avenue, Newhall, California, dated May 31.

Ninyo & Moore, 2016, Phase 1 Certification Letter, William S. Hart High School – Infrastructure Phase 1 Project, Newhall, California, dated December 13.

WSHUHSD, 2017, Electronic Mail, from Mons Mendoza to Rajindra Handapangoda, Re: Inspection Services for Hart HS Infrastructure Phase, dated March 8.

Dear Mr. Mendoza:

Ninyo & Moore is pleased to submit this proposal for geotechnical testing services during the construction of the William S. Hart High School Phase 1 Infrastructure project located at 24825 Newhall Avenue in Newhall, California. We provided geotechnical services during the initial phase of Phase 1 construction, which consisted of installing new site utilities at the track and field renovation portion and our referenced certification letter was submitted subsequently, dated December 13, 2016. Based on our review of the referenced email correspondence, we understand that the continuation and completion of the Phase I Infrastructure project is scheduled for the summer of 2017. The approximate duration of the project is 14 weeks. The next phase of construction will involve installing and extending site utilities from the end of the track and field renovation portion towards Newhall Avenue. Based on our review of the project Statement of Structural Tests and Inspections (DSA-103) form, our anticipated scope of services will include inspection and testing of earthwork associated with the new site utilities.

## **SCOPE OF SERVICES**

Our services will be performed in general accordance with the California Code of Regulations Title 24. Based on our understanding of the proposed construction and our experience with similar projects, we propose to provide the following scope of services:

- Project coordination, technical support, and management, including review of the project plans and specifications, distribution of test reports, and work scheduling.
- Regular distribution of tests and Division of the State Architect (DSA) interim and final verified reports in accordance with new DSA guidelines, 2013 California Administrative Code and DSA Construction Oversight Process (PR 13-01) requirements.
- Attendance at pre-construction meetings and as-needed field meetings.
- Field Engineer/Geologist support for inspection of foundation excavations and to provide written recommendations, if needed.
- Field Technician Services for observation and testing during temporary excavations, trench backfill, structure backfill, subgrade preparation and during aggregate base placement. Field density test will be performed to evaluate the contractor's compaction efforts.
- Laboratory testing, including proctor density, sand equivalent, and sieve analysis testing of soils and aggregates sampled in the field.
- Preparation of daily reports, test data sheets and field memoranda to document the items inspected.
- Preparation and submittal of the Geotechnical Interim and Final Verified Reports (DSA-293).

## **ASSUMPTIONS**

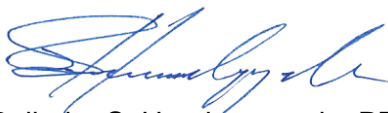
Based on our experience with similar projects, the following assumptions have been made in the preparation of our scope of services:

- Our services will be scheduled and coordinated by the project inspector or construction manager on an as-needed basis.
- Our services are subject to prevailing wage requirements.
- Our estimated fee does not include stand-by time or costs associated with retesting or reinspecting materials that were found not to be in compliance with the project plans or specifications. Our services will depend on the construction schedule and the contractor's operations. Hours spent that exceed those in the attached table will be billed on a time-and-materials basis.

## ESTIMATED FEE

We propose to provide materials testing and specialty inspection services on a time-and-materials basis in accordance with the attached Schedule of Fees and Schedule of Fees for Laboratory Testing. Our estimated fee for the scope of services described herein is presented in the attached Table 1. Ninyo & Moore appreciates the opportunity to provide services on this project and we look forward to working with you.

Respectfully submitted,  
**NINYO & MOORE**



Rajindra S. Handapangoda, PE, GE  
Senior Engineer

RAH/AR/mlc



Alfred "Tino" Rodriguez  
Principal, Construction Services

Attachments: Table 1 – Breakdown of Estimated Fee  
Schedule of Fees  
Schedule of Fees for Laboratory Testing

Distribution: (1) Addressee (via e-mail)

**TABLE 1 - BREAKDOWN OF ESTIMATED FEE**

<b>PROJECT COORDINATION AND MANAGEMENT</b>				
Senior Project Engineer/Geologist	36 hours @	\$ 160.00 /hour	\$	5,760.00
<b>Subtotal</b>			<b>\$</b>	<b>5,760.00</b>

<b>FIELD SERVICES</b>				
Field Technician/Inspector				
Footing Inspection	12 hours @	\$ 87.00 /hour	\$	1,044.00
Trench and Structure Backfill	180 hours @	\$ 87.00 /hour	\$	15,660.00
Subgrade and Agg Base Preparation	64 hours @	\$ 87.00 /hour	\$	5,568.00
Sample Pick-up	10 hours @	\$ 87.00 /hour	\$	870.00
Vehicle and Equipment Usage	266 hours @	\$ 12.00 /hour	\$	3,192.00
<b>Subtotal</b>			<b>\$</b>	<b>26,334.00</b>

<b>LABORATORY ANALYSES</b>				
Proctor Density	4 tests @	\$ 200.00 /test	\$	800.00
Proctor Density Rock Corrections	2 tests @	\$ 100.00 /test	\$	200.00
Sieve Analysis	2 tests @	\$ 130.00 /test	\$	260.00
Sand Equivalent	2 tests @	\$ 110.00 /test	\$	220.00
<b>Subtotal</b>			<b>\$</b>	<b>1,480.00</b>

<b>REPORT PREPARATION FOR THE DSA-293</b>				
Principal Engineer	4 hours @	\$ 168.00 /hour	\$	672.00
Senior Project Engineer/Geologist	6 hours @	\$ 160.00 /hour	\$	960.00
<b>Subtotal</b>			<b>\$</b>	<b>1,632.00</b>

<b>CONTINGENCY</b>				
Field Technician/Inspector	50 hours @	\$ 87.00 /hour	\$	4,350.00
Vehicle and Equipment Usage	50 hours @	\$ 12.00 /hour	\$	600.00
<b>Subtotal</b>			<b>\$</b>	<b>4,950.00</b>

<b>TOTAL ESTIMATED FEE</b>			<b>\$</b>	<b>40,156.00</b>
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## SCHEDULE OF FEES

### HOURLY CHARGES FOR PERSONNEL

Principal Engineer/Geologist/Environmental Scientist .....	\$ 168
Senior Engineer/Geologist/Environmental Scientist.....	\$ 164
Senior Project Engineer/Geologist/Environmental Scientist .....	\$ 160
Project Engineer/Geologist/Environmental Scientist.....	\$ 156
Senior Staff Engineer/Geologist/Environmental Scientist.....	\$ 141
Staff Engineer/Geologist/Environmental Scientist.....	\$ 128
GIS Analyst .....	\$ 114
Field Operations Manager .....	\$ 104
Supervisory Technician* .....	\$ 95
Nondestructive Examination Technician*, UT, MT, LP .....	\$ 95
Senior Field/Laboratory Technician* .....	\$ 87
Field/Laboratory Technician* .....	\$ 87
ACI Concrete Technician* .....	\$ 87
Concrete/Asphalt Batch Plant Inspector* .....	\$ 87
Special Inspector (Concrete, Masonry, Steel, Welding, and Fireproofing)* .....	\$ 87
Technical Illustrator/CAD Operator.....	\$ 86
Geotechnical/Environmental/Laboratory Assistant .....	\$ 73
Information Specialist.....	\$ 73
Data Processing, Technical Editing, or Reproduction.....	\$ 64

### OTHER CHARGES

Concrete Coring Equipment (includes one technician) .....	\$ 160 /hr
PID/FID Usage.....	\$ 140 /day
Anchor load test equipment (includes technician) .....	\$ 97 /hr
Hand Auger Equipment .....	\$ 65 /day
Inclinometer Usage .....	\$ 40 /hr
Vapor Emission Kits.....	\$ 40 /kit
Level D Personal Protective Equipment (per person per day) .....	\$ 30 /p/d
Rebar Locator (Pachometer).....	\$ 30 /hr
Nuclear Density Gauge Usage.....	\$ 15 /hr
Field Vehicle Usage.....	\$ 12 /hr
Direct Project Expenses.....	Cost plus 15 %
Laboratory testing, geophysical equipment, and other special equipment provided upon request.	

### NOTES (Field Services)

For field and laboratory technicians and special inspectors, regular hourly rates are charged during normal weekday construction hours. Overtime rates at 1.5 times the regular rates will be charged for work performed outside normal construction hours and all day on Saturdays. Rates at twice the regular rates will be charged for all work in excess of 12 hours in one day or on Sundays and holidays. Lead time for any requested service is 24 hours. Field Technician rates are based on a 4-hour minimum. Special inspection rates are based on a 4-hour minimum for the first 4 hours and an 8-hour minimum for hours exceeding 4 hours. Field personnel are charged portal to portal.

\*Indicates rates that are based on Prevailing Wage Determination made by the State of California, Director of Industrial Relations on a semiannual basis. Our rates will be adjusted in conjunction with the increase in the Prevailing Wage Determination during the life of the project.

### INVOICES

Invoices will be submitted monthly and are due upon receipt. A service charge of 1.0 percent per month may be charged on accounts not paid within 30 days.

### TERMS AND CONDITIONS

The terms and conditions of providing our consulting services include our limitation of liability and indemnities as presented in Ninyo & Moore's Work Authorization and Agreement.

## SCHEDULE OF FEES FOR LABORATORY TESTING

### Laboratory Test, Test Designation, and Price Per Test

#### Soils

Atterberg Limits, D 4318, CT 204 .....	\$ 160
California Bearing Ratio (CBR), D 1883 .....	\$ 485
Chloride and Sulfate Content, CT 417 & CT 422 .....	\$ 175
Consolidation, D 2435, CT 219 .....	\$ 300
Consolidation – Time Rate, D 2435, CT 219 .....	\$ 75
Direct Shear – Remolded, D 3080 .....	\$ 325
Direct Shear – Undisturbed, D 3080 .....	\$ 275
Durability Index, CT 229 .....	\$ 165
Expansion Index, D 4829, IBC 18-3 .....	\$ 180
Expansion Potential (Method A), D 4546 .....	\$ 160
Geofabric Tensile and Elongation Test, D 4632 .....	\$ 180
Hydraulic Conductivity, D 5084 .....	\$ 330
Hydrometer Analysis, D 422, CT 203 .....	\$ 220
Moisture, Ash, & Organic Matter of Peat/Organic Soils .....	\$ 120
Moisture Only, D 2216, CT 226 .....	\$ 35
Moisture and Density, D 2937 .....	\$ 45
Permeability, CH, D 2434, CT 220 .....	\$ 255
pH and Resistivity, CT 643 .....	\$ 175
Proctor Density D 1557, D 698, CT 216, & .....	\$ 200
AASHTO T-180 (Rock corrections add \$100)	
R-value, D 2844, CT 301 .....	\$ 295
Sand Equivalent, D 2419, CT 217 .....	\$ 110
Sieve Analysis, D 422, CT 202 .....	\$ 130
Sieve Analysis, 200 Wash, D 1140, CT 202 .....	\$ 100
Specific Gravity, D 854 .....	\$ 100
Thermal Resistivity (ASTM 5334, IEEE 442) .....	\$ 880
Triaxial Shear, C.D, D 4767, T 297 .....	\$ 430
Triaxial Shear, C.U., w/pore pressure, D 4767, T 2297 per pt. \$	365
Triaxial Shear, C.U., w/o pore pressure, D 4767, T 2297 per pt. \$	210
Triaxial Shear, U.U., D 2850 .....	\$ 155
Unconfined Compression, D 2166, T 208 .....	\$ 120
Wax Density, D 1188 .....	\$ 100

#### Masonry

Brick Absorption, 24-hour submersion, C 67 .....	\$ 50
Brick Absorption, 5-hour boiling, C 67 .....	\$ 60
Brick Absorption, 7-day, C 67 .....	\$ 65
Brick Compression Test, C 67 .....	\$ 50
Brick Efflorescence, C 67 .....	\$ 50
Brick Modulus of Rupture, C 67 .....	\$ 45
Brick Moisture as received, C 67 .....	\$ 40
Brick Saturation Coefficient, C 67 .....	\$ 55
Concrete Block Compression Test, 8x8x16, C 140 .....	\$ 65
Concrete Block Conformance Package, C 90 .....	\$ 485
Concrete Block Linear Shrinkage, C 426 .....	\$ 135
Concrete Block Unit Weight and Absorption, C 140 .....	\$ 60
Cores, Compression or Shear Bond, CA Code .....	\$ 60
Masonry Grout, 3x3x6 prism compression, C 39 .....	\$ 35
Masonry Mortar, 2x4 cylinder compression, C 109 .....	\$ 35
Masonry Prism, half size, compression, C 1019 .....	\$ 120
Masonry Prism, Full size, compression, C 1019 .....	\$ 185

#### Reinforcing and Structural Steel

Chemical Analysis, A 36, A 615 .....	\$ 135
Fireproofing Density Test, UBC 7-6 .....	\$ 60
Hardness Test, Rockwell, A 370 .....	\$ 70
High Strength Bolt, Nut & Washer Conformance, per assembly, A 325 .....	\$ 130
Mechanically Spliced Reinforcing Tensile Test, ACI .....	\$ 150
Pre-Stress Strand (7 wire), A 416 .....	\$ 170
Reinforcing Tensile or Bend up to No. 11, A 615 & A 706 .....	\$ 55
Structural Steel Tensile Test: Up to 200,000 lbs. (machining extra), A 370 .....	\$ 80
Welded Reinforcing Tensile Test: Up to No. 11 bars, ACI .....	\$ 60

#### Concrete

Compression Tests, 6x12 Cylinder, C 39 .....	\$ 25
Concrete Mix Design Review, Job Spec .....	\$ 155
Concrete Mix Design, per Trial Batch, 6 cylinder, ACI .....	\$ 825
Concrete Cores, Compression (excludes sampling), C 42 .....	\$ 60
Drying Shrinkage, C 157 .....	\$ 350
Flexural Test, C 78 .....	\$ 65
Flexural Test, C 293 .....	\$ 60
Flexural Test, CT 523 .....	\$ 80
Gunite/Shotcrete, Panels, 3 cut cores per panel and test, ACI .....	\$ 275
Jobsite Testing Laboratory .....	Quote
Lightweight Concrete Fill, Compression, C 495 .....	\$ 45
Petrographic Analysis, C 856 .....	\$ 1,900
Restrained Expansion of Shrinkage Compensation .....	\$ 270
Splitting Tensile Strength, C 496 .....	\$ 90
3x6 Grout, (CLSM), C 39 .....	\$ 45
2x2x2 Non-Shrink Grout, C 109 .....	\$ 45

#### Asphalt Concrete

Air Voids, T 269 .....	\$ 50
Asphalt Mix Design, Caltrans (excl. Aggregate Quality) .....	\$ 2,800
Asphalt Mix Design Review, Job Spec .....	\$ 165
Dust Proportioning, CT LP-4 .....	\$ 50
Extraction, % Asphalt, including Gradation, D 2172, CT 382 .....	\$ 240
Film Stripping, CT 302 .....	\$ 110
Hveem Stability and Unit Weight D 1560, T 246, CT 366 .....	\$ 215
Marshall Stability, Flow and Unit Weight, T 245 .....	\$ 240
Maximum Theoretical Unit Weight, D 2041, CT 309 .....	\$ 150
Moisture Content, CT 370 .....	\$ 85
Moisture Susceptibility and Tensile Stress Ratio, T 238, CT 371 .....	\$ 1,000
Slurry Wet Track Abrasion, D 3910 .....	\$ 150
SuperPave, Asphalt Mix Verification (incl. Aggregate Quality) .....	\$ 5,200
SuperPave, Gyrotory Unit Wt., T 312 .....	\$ 75
SuperPave, Hamburg Wheel, 20,000 passes, T 324 .....	\$ 1,000
Unit Weight sample or core, D 2726, CT 308 .....	\$ 100
Voids in Mineral Aggregate, (VMA) CT LP-2 .....	\$ 50
Voids filled with Asphalt, (VFA) CT LP-3 .....	\$ 50

#### Aggregates

Clay Lumps and Friable Particles, C 142 .....	\$ 160
Cleaness Value, CT 227 .....	\$ 160
Crushed Particles, CT 205 .....	\$ 165
Durability, Coarse or Fine, CT 229 .....	\$ 195
Fine Aggregate Angularity, ASTM C 1252, T 304, CT 234 .....	\$ 180
Flat and Elongated Particle, D 4791 .....	\$ 220
Lightweight Particles, C 123 .....	\$ 180
Los Angeles Abrasion, C 131 or C 535 .....	\$ 200
Material Finer than No. 200 Sieve by Washing, C 117 .....	\$ 75
Organic Impurities, C 40 .....	\$ 80
Potential Alkali Reactivity, Mortar Bar Method, Coarse, C 1260 .....	\$ 950
Potential Alkali Reactivity, Mortar Bar Method, Fine, C 1260 .....	\$ 1,250
Potential Reactivity of Aggregate (Chemical Method), C 289 .....	\$ 450
Sand Equivalent, T 176, CT 217 .....	\$ 110
Sieve Analysis, Coarse Aggregate, T 27, C 136 .....	\$ 115
Sieve Analysis, Fine Aggregate (including wash), T 27, C 136 .....	\$ 130
Sodium Sulfate Soundness, C 88 .....	\$ 450
Specific Gravity and Absorption, Coarse, C 127, CT 206 .....	\$ 100
Specific Gravity and Absorption, Fine, C 128, CT 207 .....	\$ 160

#### Roofing

Roofing Tile Absorption, (set of 5), C 67 .....	\$ 210
Roofing Tile Strength Test, (set of 5), C 67 .....	\$ 210

Special preparation of standard test specimens will be charged at the technician's hourly rate.

Ninyo & Moore is accredited to perform the AASHTO equivalent of many ASTM test procedures.